



PATENT  
930011-2028

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant(s) : Ichiro BEKKU et al.

Serial No. : 10/027,289

For : **METHOD FOR TRANSFERRING  
TRANSPARENT CONDUCTIVE FILM**

Filed : December 20, 2001

Examiner : Yvette Clarke Thornton

Group Art Unit : 1752

745 Fifth Avenue  
New York, NY 10151

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 13, 2004.

Ronald R. Santucci, Reg. No. 28,988  
(Name of Appellant, Assignee or Registered Representative)

May 14, 2004

Date of Signature

**APPEAL BRIEF OF APPELLANTS**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450.

Sir:

This is an Appeal from the Final Rejection by the Examiner dated November 24, 2003, which issued in the above-identified application, finally rejecting claims 1-3 and 6-8. A Notice of Appeal was filed on March 12, 2004. This Brief is submitted in triplicate as required by 37 C.F.R. §1.192(a) and is accompanied by the requisite fee set forth in 37 C.F.R. §1.17(f).

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Enclosed herewith is a Credit Card Payment Form (No. 0050) in the amount of \$330.00 in payment of the fee required therefor under 1.17(c) for filing the Appeal Brief. The Commissioner is hereby authorized to charge any additional fee, or credit any overpayment, to Deposit Account 50-0320.

**REAL PARTY IN INTEREST**

The real party in interest is Kyodo Printing Co., Ltd. with offices at 14-12, Koishikawa 4-chome, Bunkyo-ku, Tokyo 112-8501 Japan, to which Appellants have assigned all interest in this application.

**RELATED APPEALS AND INTERFERENCES**

Upon information and belief, the undersigned attorney does not believe that there is any appeal or interference that will directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

**REQUEST FOR AN ORAL HEARING**

An oral hearing is requested.

**STATUS OF THE CLAIMS**

The Application was filed with claims 1-8 on December 20, 2001, and assigned Application Serial No. 10/027,289. This application is a continuation of U.S. Patent Application Serial No. 09/548,952 filed April 13, 2000 entitled "Method for Transferring Transparent Conductive Film" now issued as United States Patent No. 6,143,693.

In a preliminary amendment dated December 20, 2001, claims 4 and 5 were cancelled and claims 1 and 6 were amended.

In an Office Action dated July 30, 2002, claims 1–2 and 7 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Yukinobu et al. (U.S. Patent 5,411,792). Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Yukinobu. Claim 6 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu in view of Sato et al. (U.S. Patent 5,155,005). Claim 8 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu in view of Oka et al. (U.S. Patent 5,747,152).

In a response to the Office Action filed July 30, 2002, Appellants amended claim 1.

In a Final Office Action dated January 9, 2003, claims 1-3 and 6-8 were rejected under 35 U.S.C. 112, first and second paragraphs. Claims 1-3 and 7 were rejected under 35 U.S.C. § 103 (a) as being allegedly unpatentable over Yukinobu et al. (U.S. Patent No. 5,411,792) in view of Appellants' own disclosure and Jean (U.S. Patent No. 6,265,051). Claim 6 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu in view of Appellants' own disclosure and Jean, further in view of Sato et al. (U.S. Patent 5,155,005). Claim 8 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu in view of Appellants' own disclosure and Jean, further in view of Oka et al. (U.S. Patent 5,747,152).

In a response to the Office Action filed January 9, 2003, Appellants amended claim 1.

In an Advisory Action dated April 24, 2003, the Examiner indicated that the previously filed amendment would not be entered, and maintained the rejection of claims 1-3 and 6-8.

In a response to the Advisory Action filed April 24, 2003, Appellants filed an RCE.

In an Office Action dated June 16, 2003, claims 1-3 and 7 were rejected under 35 U.S.C. § 103 (a) as being allegedly unpatentable over Yukinobu et al. (U.S. Patent No. 5,411,792) in view of Appellants' own disclosure. Claim 6 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu et al. in view of Appellants' own disclosure and further in view of

Sato et al. (U.S. Patent 5,155,005). Claim 8 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu et al. in view of Appellants' own disclosure and further in view of Oka et al. (U.S. Patent 5,747,152).

In a response to the Office Action filed June 16, 2003, Appellants made no amendments to the claims, but submitted arguments to the Examiner distinguishing the claimed invention from the combination of references relied upon by the Examiner.

In a Final Office Action dated November 24, 2003, claims 1-3 and 7 were rejected under 35 U.S.C. § 103 (a) as being allegedly unpatentable over Yukinobu et al. (U.S. Patent No. 5,411,792) in view of Appellants' own disclosure. Claim 6 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu et al. in view of Appellants' own disclosure and further in view of Sato et al. (U.S. Patent 5,155,005). Claim 8 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yukinobu et al. in view of Appellants' own disclosure and further in view of Oka et al. (U.S. Patent 5,747,152).

In a response to the Final Office Action filed December 4, 2003, Appellants amended claim 1.

In an Advisory Action dated March 2, 2004, the Examiner indicated that the previously filed amendment would not be entered, and maintained the rejection of claims 1-3 and 6-8.

In a response to the Advisory Action filed March 2, 2004, Appellants filed a Notice of Appeal.

Accordingly, the status of the claims may be summarized as follows:

Claims Allowed:	None.
Claims Objected to:	None.
Claims Rejected:	1-3 and 6-8.

### **STATUS OF THE AMENDMENTS**

The Amendment under 37 CFR 1.116, filed on February 3, 2004 was not entered (see Advisory Action dated filed March 2, 2004).

### **SUMMARY OF THE INVENTION**

The instant invention is directed to a method for transferring a transparent conductive film onto one surface of a sheet base material made of a plastic material, wherein said transparent conductive film as an object to be transferred is preliminarily formed on a substrate which is superior in heat resistance to the plastic material, said transparent conductive film being sandwiched between a peelable layer which can be peeled off at the time of transfer and a protective film for protecting said transparent conductive film on said substrate which is superior in heat resistance to the plastic material; said transparent conductive film being made of a metal oxide having a specific resistance of  $3.0 \times 10^4$  ohm-cm or less when the substrate is heated to a temperature of 150 degrees C or more, formed by sputtering, ion plating or electron beam deposition methods.

### **ISSUES PRESENTED**

(I) Whether claims 1-3 and 6-8 are unpatentable under 35 U.S.C. § 103(b) as being obvious over Yukinobu et al. (U.S. Patent No. 5,411,792) in view of Appellants' own disclosure as necessary with Sato et al. (U.S. Patent 5,155,005) or Oka et al. (U.S. Patent 5,747,152).

### **GROUPING OF CLAIMS**

For purposes of this appeal, claims 1-3 and 6-8 constitute one group and stand or fall together.

## ARGUMENTS

### **I. Claims 1-3 and 6-8 Were Improperly Rejected as Unpatentable Under 35 U.S.C. §103(a)**

Appellants submit that the claims are patentable over Yukinobu, Sato and Oka.

Appellants' invention, as recited in the only independent claim, is directed toward a method for transferring a transparent conductive film onto one surface of a sheet base material made of a plastic material, wherein, *inter alia*, the transparent conductive film is made of a metal oxide having a specific resistance of  $3.0 \times 10^{-4}$  ohm-cm or less when the substrate is heated to a temperature of 150°C or more formed by sputtering, ion plating or electron beam deposition methods.

Neither Yukinobu, Sato and Oka discloses a method for transferring a transparent conductive film onto one surface of a sheet base material made of a plastic material, wherein the transparent conductive film being made of a metal oxide having a specific resistance of  $3.0 \times 10^{-4}$  ohm-cm or less when the substrate is heated to a temperature of 150°C or more formed by sputtering, ion plating or electron beam deposition methods. In particular, Appellants wish to comment on the Yukinobu reference.

Yukinobu relates to a film forming method including a binding resin and ultra-fine particles of indium tin oxide (ITO) dispersed therein formed by a printing method.

Yukinobu fails to teach or suggest a specific resistance value of  $3.0 \times 10^{-4}$  ohm-cm or lower. Instead, Yukinobu merely purports a resistance value higher than  $3.0 \times 10^{-4}$  ohm-cm. In other words, the indium-tin oxide film of Yukinobu has a resistance value higher than the instantly claimed specific resistance of  $3.0 \times 10^{-4}$  ohm-cm when the substrate is heated to a temperature of 150°C or more. Thus, the ITO film of Yukinobu (the ITO in combination with the binder) does not render Appellants' invention unpatentable.

Appellants respectfully assert that the Examiner's reliance on any alleged disclosure by Appellants is misplaced. The portions of the specification relied upon by the Examiner—as basis for the allegation that ITO would inherently perform as the Examiner believes—does not contain information from which an obviousness rejection can be extrapolated. The Examiner's reliance on inherency is defective. The Examiner is respectfully reminded that it is not enough to merely allege that simply because ITO may be the preferred material for the claimed conductive layer that it must “inherently” speak to the invention. Instead, there must be a disclosure or suggestion that the properties of the claimed invention are necessarily present in the art for inherency to attach. According to *In re Rijckaert*, 9 F.3d 1531, 1957 (Fed. Cir. 1993), “such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection.” The Federal Circuit is clear that “‘inherency...may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient [to establish inherency].’” *Continental Can Company v. Monsanto Company*, 948 F.2d 1264, 1269 (Fed. Cir. 1991), *citing to In re Oelrich*, 666 F.2d 578, 581-582 (C.C.P.A. 1981). Indeed, “before a reference can be found to disclose a feature by virtue of its inherency, one of ordinary skill in the art viewing the reference must understand that the unmentioned feature at issue is *necessarily* present in the reference.” *SGS-Thomson Microelectronics, Inc. v. International Rectifier Corporation*, 31 F.3d 1177 (Fed. Cir. 1994) (emphasis in original).

Further, it is manifestly clear that the Examiner is impermissibly relying on Appellants' own disclosure for support of the obviousness rejection. As noted above, the Federal Circuit in *In re Dow* was very clear that both the suggestion of the claimed invention and the expectation of success must be founded in the prior art, and not in Appellants' own disclosure.

Also, it is respectfully submitted that the film in Yukinobu cannot meet the claimed resistance when the substrate is heated to a temperature of 150 degrees C or higher because the film composition and the forming method is different than the present invention. Thus, the ITO in Yukinobu cannot inherently meet the claims of the present invention as the composition and the forming methods are different.

Moreover, Yukinobu teaches away from the instant invention. Specifically, Yukinobu teaches that the film formed by the sputtering method and the like, as claimed in the present invention, present problems associated with expensive equipment, productivity or high yield, thereby hardly permitting manufacturing of transparent conductive layers. (Yukinobu at col. 1, lines 13-22). To avoid these problematic deposition methods, Yukinobu relates to transparent conductive films formed by printing and setting conductive inks which contains ultra-fine particle size smaller than the wavelength of visible light (Yukinobu at col. 1, lines 25-32).

In addition, Yukinobu's film, having ultra-fine ITO particles and a resin binder, requires a heating or calcinating step after forming or applying a coating. The instant invention, by contrast, does not. More specifically, in the instant invention the transparent conductive film is made of a metal oxide having a specific resistance of  $3.0 \times 10^{-4}$  ohm-cm or less at a substrate temperature of 150°C or more.

Thus, Yukinobu teaches away from the claimed forming methods and a skilled artisan would not modify Yukinobu in any manner to meet the claims of the present invention.

None of the secondary documents remedy these inherent deficiencies. Sato relates to a method of producing a polychromatic colored image with clear fine patterns. Oka relates to a transparent film comprising a transparent plastic substrate film and a hard coat layer. Neither document, however, provides the requisite teaching or suggestion that would lead a skilled

artisan to practice the instantly claimed method for transferring a transparent conductive film onto one surface of a sheet base material made of a plastic material, wherein the transparent conductive film is made of a metal oxide having a specific resistance of  $3.0 \times 10^{-4}$  ohm-cm or less when the substrate is heated to a temperature of 150°C or more.

It is also well-settled that "obvious to try" is not the standard upon which an obviousness rejection should be based. *See In re Fine*. And as "obvious to try" would be the only standard that would lend the Section 103 rejections any viability, the rejections must fail as a matter of law.

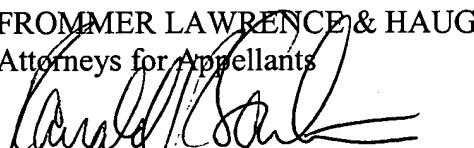
Accordingly, for at least the reasons described above, the documents cited by the Examiner fails to render claims 1-3 and 6-8 unpatentable under 35 U.S.C. §103(a). Therefore, the rejected claims should be allowed.

### CONCLUSION

For the reasons discussed in this brief, claims 1-3 and 6-8 are patentable. It is, therefore, respectfully submitted that the Examiner erred in rejecting claims 1-3 and 6-8, and a reversal by the Board is solicited.

Respectfully submitted,

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**APPENDIX**

**CLAIMS ON APPEAL**

1. (Previously Presented) A method for transferring a transparent conductive film onto one surface of a sheet base material made of a plastic material, wherein said transparent conductive film as an object to be transferred is preliminarily formed on a substrate which is superior in heat resistance to the plastic material, said transparent conductive film being sandwiched between a peelable layer which can be peeled off at the time of transfer and a protective film for protecting said transparent conductive film on said substrate which is superior in heat resistance to the plastic material; said transparent conductive film being made of a metal oxide having a specific resistance of  $3.0 \times 10^{-4}$  ohm-cm or less when the substrate is heated to a temperature of 150 degrees C or more, formed by sputtering, ion plating or electron beam deposition methods.
2. (Original) A transferring method according to claim 1, wherein said substrate which is superior in heat resistance to the plastic material is a substrate made of any one or a combination of ceramic, glass and metal, said peelable layer being made of polyimide resin.
3. (Original) A transferring method according to claim 1, wherein an adhesive layer is formed on said protective film which is formed on said substrate which is superior in heat resistance to the plastic material.
4. (Cancelled).
5. (Cancelled).
6. (Previously Presented) A transferring method according to claim 3, wherein said transparent conductive film is an electrode of a liquid crystal color display unit, a color filter

layer for color display is formed on said protective film and said adhesive layer covers said color filter layer.

7. (Original) A transferring method according to claim 1, wherein said transparent conductive film is made of a metal oxide, said protective film being made of any one or a combination of organic resin and an inorganic compound.

8. (Original) A transferring method according to claim 1, the hardness of said protective film is set to a value equivalent to H or more in pencil hardness based on JIS K5401 test.